Missouri Assessment Program
Spring 2002

Mathematics

Released Items
Grade 10

Confidential

4 Peter wrote five different whole numbers on the chalkboard. He wrote three even numbers and two odd numbers.

If he adds all the possible combinations of two different numbers, how many sums will be even and how many sums will be odd? In the space below, provide the work that shows how you arrived at your answers and write your answers on the lines.

_____ even sums

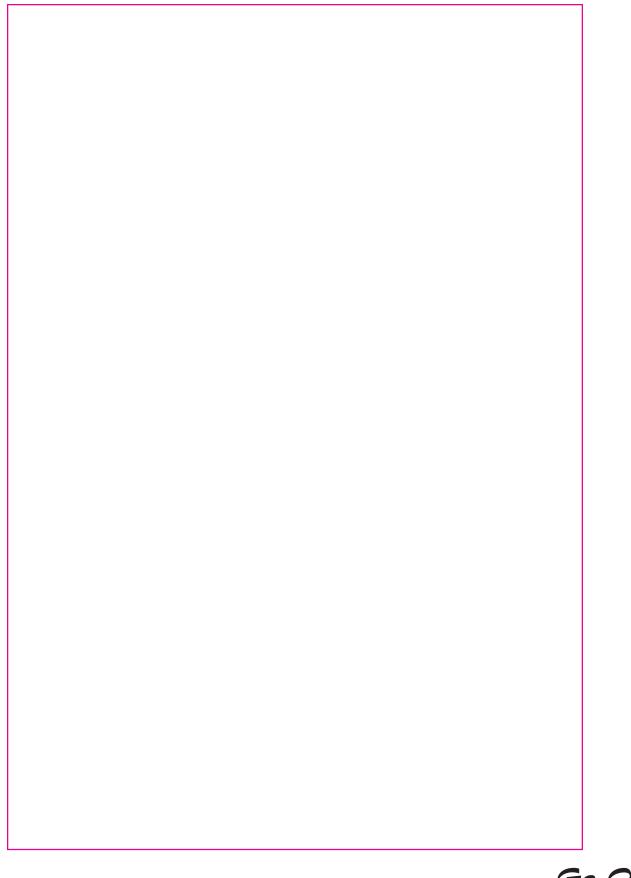_____ odd sums

Directions

Do Number 11 about writing a pool proposal. Show all of your work and write your answers directly in this book.

11 The Burke Community Center Improvement Committee plans to build a rectangular swimming pool that meets the requirements below.

- The perimeter of the pool should not exceed 120 meters.
- The pool should have the largest surface area possible.
- The fence around the pool will measure 30 meters by 50 meters.
- The fence around the pool should be at least 4 meters from each edge of the pool.

In the space below and on the next page, write a letter to the Burke Community Center Improvement Committee to recommend a plan for the swimming pool dimensions and area that best meets the requirements listed above. Include a sketch showing the pool dimensions and fence dimensions and any mathematical explanations to help convince the committee members to use your plan.

Go On

5 Mr. Valder sells nuts at a corner stand. He sells peanuts for $1.00 per pound and walnuts for $2.00 per pound. Mr. Valder wants to make 50 pounds of a peanut-walnut mix. He will maintain the cost per pound of each type of nut and sell the mix for $1.60 per pound. How many pounds of each nut should he put in the mix? In the space below, provide the work that shows how you arrived at your answers and write your answers on the lines.

_____ pounds of peanuts

_____ pounds of walnuts